## **REMARKS/ARGUMENTS**

#### I. STATUS OF THE CLAIMS

Claims 1-24 are currently pending. Claims 1, 7, 13, 14, and 16 are currently amended. Support for the amendments to the claims can be found throughout the specification and in the figures. In particular, support for the amendment to claims 1 and 13 can be found for example on page 2, lines 27-29, page 12, lines 19-23, and in figure 1. Support for the amendment to claims 7 and 16 can be found for example on page 3, lines 1-3 and in figure 7. Support for the amendment to claim 14 can be found, for example on page 2, lines 21-29. No new matter is added with entry of this amendment.

## II. INTERVIEW

The Applicants acknowledge and thank Examiner Beisner for the telephone interview on February 2, 2007. Language to overcome the written description rejections under 35 U.S.C. §112, first paragraph, and the arguments to overcome the obviousness refection under 35 U.S.C. §103(a) were discussed. The amendment as set forth below is consistent with what was discussed during the interview.

## III. CLAIM REJECTIONS UNDER 35 U.S.C. §112 FIRST PARAGRAPH

Claims 1-24 stand rejected under 35 U.S.C. §112, first paragraph as failing to comply with the written description requirement. Specifically, the Examiner alleges that claims 1 and 13 as previously presented implied that all of the walls that form the channel and are adjacent to the inlet and outlet form an angle of 100°-150°. The Examiner further alleges that the specification and claims as originally filed disclose that walls (7, 7', 7", and 7"") of the body or frame forming the channel form an angle of 100°-150° with respect to the inlet and outlet. The Examiner alleges that the channel is also formed by two additional walls, a top wall and a bottom wall which are also considered walls of the channel but do not meet the previously presented claim language.

Applicants respectfully traverse the rejection. However, in an effort to expedite prosecution of the application, Applicants have amended the claim language to clarify that the angle is formed between the side walls and the walls of the inlet (or outlet).

In view of the claims as presently amended, Applicants respectfully request that the Examiner withdraw the rejection.

# IV. REJECTION UNDER 35 USC §103(a)

Claims 1, 4-14, 16, 17, and 20-24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Petersen et al. (U.S. Pat. No. 6,391,541) in view of Cheng et al. (U.S. Pat. No. 6,071,394). The Examiner cites Petersen et al. as disclosing, inter alia, a cartridge for conducting thermocycling of fluids, wherein the cartridge has an inlet and an outlet connected by a channel. Petersen et al., however, is silent as to the wall construction between the inlet (or outlet) and the channel. In particular, Petersen et al. does not teach or suggest that the walls of the channel adjacent to the inlet and/or outlet form an angle of 100°-150°.

The Examiner cites Cheng et al. as curing this defect in Petersen et al.

Specifically, the Examiner cites Cheng et al. as disclosing, inter alia, a flow cell chamber having an inlet, an outlet, and a channel where the walls between the inlet, the outlet, and channel form an angle greater than 90° and less than 180°. See, page 5 of the office action citing figure 11b of Cheng et al.

Applicants traverse the rejection on the grounds that the Examiner has not established a proper *prima facie* case of obviousness. First, Applicants note that claims 1 and 13 are independent claims, and that claims 4-12, 16, 17, and 20-24 depend either directly or indirectly from either independent claim 1 or independent claim 13.

With regard to the improper *prima facie* case for obviousness, Applicants contend that the combined references do not teach or suggest all of the salient elements of independent claims 1 and 13 as currently presented. In particular, Petersen *et al.* does not teach or suggest that the upstanding side walls of the chamber, directly connected to the inlet (or outlet), form an angle of 100° -150° with the walls of the inlet (or outlet) as presently claimed.

Furthermore, Cheng et al. does not cure this defect. Specifically, Cheng et al. teaches that the walls between the inlet, the outlet, and the channel form an angle greater than 90° and less than 180°. Cheng et al., however, does not teach or suggest that the walls between the inlet, outlet and channel forming an angle greater than 90° and less than 180° are directly connected to the inlet (or outlet) as required by independent claims 1 and 13. Because Petersen et al. in view of Cheng et al. does not teach or disclose all of the salient elements of independent claims 1 and 13 as presently recited, the Examiner has not established a proper prima facie case of obviousness. Therefore, the invention as presently claimed is not obvious in light of the cited references.

In view of the above, the applicants respectfully request that the Examiner withdraw the rejection.

The arguments above with regard to independent claims 1 and 13 are also applicable to claims 4-12, 16, 17, and 20-24, which depend either directly or indirectly from the independent claims 1 and 13, and therefore include all of the limitations of the independent claim from which they depend. As discussed above, because Petersen *et al.* in view of Cheng *et al.* does not teach or disclose all of the salient elements of independent claims 1 and 13. Specifically, the cited references do not teach or disclose that the sidewalls forming an angle of  $100^{\circ}$ - $150^{\circ}$  with the walls of the inlet are <u>directly connected</u> to the inlet (or outlet) as presently claimed. Therefore, the invention as presently claimed is not obvious in light of the cited references.

In light of the above, the Applicants respectfully request that the Examiner withdraw the withdraw the rejection.

## **CONCLUSION**

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,

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